

In the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A portable electronic device, comprising:
a housing;
an antenna associated with the housing;
a multi-mode matching circuit operatively associated with the antenna, the multi-mode matching circuit being configured to operate in a first mode when the housing of the portable electronic device is in a first configuration and in a second mode when the housing of the portable electronic device is in a second configuration; and
a sensor operatively associated with the multi-mode matching circuit, wherein the sensor is configured to detect the first configuration of the housing of the portable electronic device and/or the second configuration of the housing of the portable electronic device and wherein the multi-mode matching circuit is configured to adjust at least one parameter of the multi-mode matching circuit responsive to the first and/or second detected configurations of the housing of the portable electronic device, and wherein the at least one parameter is stored in a lookup table; and
a processor operatively associated with the sensor, the processor being configured to locate the at least one parameter in the lookup table using the first and/or second detected configuration of the housing of the portable electronic device as a pointer for an entry in the lookup table.
2. (Cancelled).
3. (Previously Presented) The portable electronic device of Claim 1 wherein the multi-mode matching circuit comprises an impedance matching circuit and wherein the at least one parameter of the multi-mode matching circuit comprises a resistance, a capacitance and/or an inductance.
4. (Cancelled).

5. (Previously Presented) The portable electronic device of Claim 1, further comprising a timer circuit operatively associated with the sensor, wherein the sensor is further configured to detect the first and/or second configuration of the housing of the portable electronic device responsive to expiration of the timer circuit.

6. (Original) The portable electronic device of Claim 1 wherein the portable electronic device comprises a portable electronic device having a flip configuration, wherein the housing of the portable electronic device is in the first configuration when the portable electronic device is open and wherein the housing of the portable electronic device is in the second configuration when the portable electronic device is closed.

7. (Previously Presented) A mobile terminal, comprising:
a housing;
an antenna associated with the housing;
a multi-mode matching circuit operatively associated with the antenna; and
a sensor operatively associated with the multi-mode matching circuit and configured to detect a position of the antenna relative to the housing and/or a configuration of the housing of the mobile terminal, wherein the multi-mode matching circuit is configured responsive to the detected position of the antenna and/or the configuration of the housing of the mobile terminal;

wherein the multi-mode matching circuit is configured to operate in a first mode when the detected position is a first detected position relative to the housing and/or the housing of the mobile terminal is in a first configuration and in a second mode when the detected position is a second detected position relative to the housing and/or the housing of the mobile terminal is in a second configuration,

wherein the multi-mode matching circuit is configured by adjusting at least one parameter of the multi-mode matching circuit responsive to the first and/or second detected position of the antenna and/or the first and/or second configuration of the housing of the mobile terminal, and

wherein the at least one parameter is stored in a lookup table, the mobile terminal further comprising a processor operatively associated with the sensor, the processor being

configured to locate the at least one parameter in the lookup table using the first and/or second detected position and/or the first and/or second configuration as a pointer for an entry in the lookup table.

8. (Cancelled).

9. (Previously Presented) The mobile terminal of Claim 7, wherein the multi-mode matching circuit comprises an impedance matching circuit and wherein at least one of the parameter of the multi-mode matching circuit comprises a resistance, a capacitance and/or an inductance.

10. (Cancelled).

11. (Previously Presented) The mobile terminal of Claim 7 further comprising a timer circuit operatively associated with the sensor, wherein in the sensor is further configured to detect the position of the antenna relative to the housing and/or the configuration of the housing of the mobile terminal responsive to expiration of the timer circuit.

12. (Previously Presented) The mobile terminal of Claim 7 wherein the mobile terminal comprises a mobile terminal having a flip configuration, wherein the housing of the mobile terminal is in the first configuration when the mobile terminal is open and wherein the housing of the mobile terminal is in the second configuration when the mobile terminal is closed.

13. (Previously Presented) The mobile terminal of Claim 7 wherein the antenna comprises a retractable antenna, wherein the antenna is in the first position when the retractable antenna is retracted and wherein the antenna is in the second position when the retractable antenna is extended.

14. (Previously Presented) A method of operating a portable electronic device, comprising:

detecting a configuration of a housing of the portable electronic device;

adjusting a multi-mode matching circuit based on the detected configuration of the housing of the portable electronic device, wherein the multi-mode matching circuit is operatively associated with an antenna of the portable electronic device, wherein adjusting the multi-mode matching circuit comprises adjusting at least one parameter of the multi-mode matching circuit responsive to the detected configuration of the housing of the portable electronic device and wherein the at least one parameter is stored in a lookup table; and

locating the at least one parameter in the lookup table using the detected configuration as a pointer for an entry in the lookup table.

15. (Cancelled).

16. (Previously Presented) The method of Claim 14 wherein adjusting at least one parameter of the multi-mode matching circuit comprises adjusting a resistance, a capacitance and/or an inductance of the multi-mode matching circuit.

17. (Cancelled).

18. (Original) The method of Claim 14 wherein detecting a configuration of the housing of the portable electronic device further comprises repeatedly detecting the configuration of the housing of the portable electronic device responsive to a detected change in position of the housing.

19. (Original) The method of Claim 14 wherein detecting a configuration of the housing of the portable electronic device further comprises periodically detecting the configuration of the housing of the portable electronic device responsive to expiration of a timer circuit.

20. (Original) The method of Claim 14, further comprising:

operating the multi-mode matching circuit in a first mode when the detected configuration is a first detected configuration; and

operating the multi-mode matching circuit in a second mode when the detected configuration is a second detected configuration.

21. (Cancelled).

22. (Previously Presented) A method of operating a mobile terminal, comprising:
detecting a position of an antenna relative to a housing of the mobile terminal and/or a configuration of the housing of the mobile terminal;

configuring a multi-mode matching circuit responsive to the detected position of the antenna and/or the configuration of the housing of the mobile terminal, wherein the multi-mode matching circuit is operatively associated with the antenna of the mobile terminal, wherein configuring the multimode matching circuit comprises adjusting at least one parameter of the multi-mode matching circuit responsive the detected position of the antenna and/or the configuration of the housing of the mobile terminal and wherein the at least one parameter is stored in a lookup table; and

locating the at least one parameter in the lookup table using the detected position and/or configuration as a pointer for an entry in the lookup table.

23. (Cancelled).

24. (Previously Presented) The method of Claim 22 wherein adjusting at least one parameter of the multi-mode matching circuit comprises adjusting a resistance, a capacitance and/or an inductance of the multi-mode matching circuit.

25. (Cancelled).

26. (Original) The method of Claim 22 wherein detecting a position of an antenna relative to a housing of the mobile terminal and/or a configuration of the housing further comprises repeatedly detecting the position and/or configuration responsive to a detected change in position of the antenna relative to the housing and/or a configuration of the housing.

27. (Original) The method of Claim 22 wherein detecting a position of an antenna relative to a housing of the mobile terminal and/or a configuration of the housing further comprises periodically detecting the position and/or the configuration responsive to expiration of a timer circuit.

28. (Original) The method of Claim 22, further comprising:
operating the multi-mode matching circuit in a first mode when the detected position and/or detected configuration is a first detected position and/or detected configuration; and
operating the multi-mode matching circuit in a second mode when the detected position and/or the detected configuration is a second detected position and/or detected configuration.

29. (Original) The method of Claim 28 wherein the mobile terminal comprises a mobile terminal having a flip configuration, wherein the housing of the portable electronic device is in the first detected configuration when the mobile terminal is open and wherein the housing of the mobile terminal is in the second detected configuration when the mobile terminal is closed.

30. (Original) The method of Claim 28 wherein the antenna comprises a retractable antenna, wherein the antenna is in the first detected position when the retractable antenna is retracted and wherein the antenna is in the second detected position when the retractable antenna is extended.

31. (Previously Presented) A portable electronic device, comprising:
a housing;
an antenna associated with the housing;
a multi-mode matching circuit operatively associated with the antenna, the multi-mode matching circuit being configured to operate in at least three modes corresponding to respective first through third configurations of the housing.

32. (Previously Presented) The portable electronic device of Claim 31 wherein the portable electronic device comprises a portable electronic device having a jack-knife

configuration, wherein the first through third configurations of the housing of the portable electronic device correspond to different positions of the portable electronic device having the jack-knife configuration.

33. (Previously Presented) The portable electronic device of Claim 32, further comprising:

a sensor operatively associated with the multi-mode matching circuit, wherein the sensor is configured to detect the first through third configurations of the housing of the portable electronic device and wherein the multi-mode matching circuit is configured to adjust at least one parameter of the multi-mode matching circuit responsive to the first, second and/or third detected configurations of the housing of the portable electronic device, and wherein the at least one parameter is stored in a lookup table; and

a processor operatively associated with the sensor, the processor being configured to locate the at least one parameter in the lookup table using the first, second and/or third detected configuration of the housing of the portable electronic device as a pointer for an entry in the lookup table.

34. (Previously Presented) The portable electronic device of Claim 31, further comprising a camera configured to protrude from the portable electronic device during camera functionality and to retract when not in use, wherein the first through third configurations of the portable electronic device correspond to relative positions of the camera.

35. (Previously Presented) A method of operating a portable electronic device, comprising:

detecting a configuration of a housing of the portable electronic device; and

adjusting a multi-mode matching circuit based on the detected configuration of the housing of the portable electronic device, wherein the housing of the portable electronic device has at least three configurations, wherein the portable electronic device comprises a portable electronic device having a jack-knife configuration, and wherein the at least three configurations correspond to different configurations of the jack-knife configuration.

36. (Previously Presented) The method of Claim 35, wherein the multi-mode matching circuit is operatively associated with an antenna of the portable electronic device, wherein adjusting the multi-mode matching circuit comprises adjusting at least one parameter of the multi-mode matching circuit responsive to the detected configuration of the housing of the portable electronic device and wherein the at least one parameter is stored in a lookup table; and

locating the at least one parameter in the lookup table using the detected configuration as a pointer for an entry in the lookup table.